UK Subject to change

Document Ref:
FTB-16/500/34370/PMR47/Issue 1/Oct 02

Copyright ©
These instructions are the sole property of Ferm-Omega Tools and may not be reproduced

USER'S MANUAL

Ferm Pillar Drill Machine

FTB-16/500

CE

Ferm®

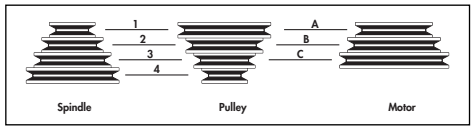
Art.nr. 733505
Screwfix Art.nr. 34370

UK English

FERM PILLAR DRILLING MACHINE FTB-16/500 USERS MANUAL

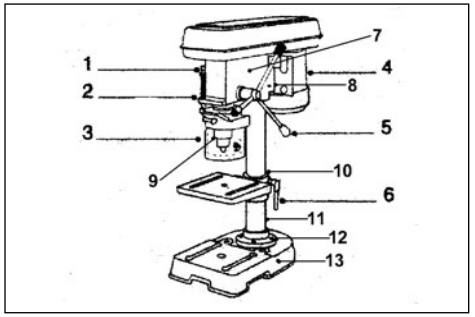
Voltage	230 V
Frequency	50 Hz
Power input	500 W
No load speeds	9
Chuck capacity	16 mm
Chuck shank	B-16
Weight - gross	23.5 kg
Height - assembled	645 mm
Width - assembled	230 mm
Depth - assembled	480 mm
Lpa (sound pressure level)	62 dB(A)
Lwa (sound power level)	75 dB(A)

SPINDLE SPEEDS



1. A-4 - 390
2. B-4 - 620
3. A-3 - 650
4. C-4 - 780
5. A-2 - 820
6. B-3 - 1020
7. C-2 - 1630
8. B-1 - 1830
9. C-1 - 2340

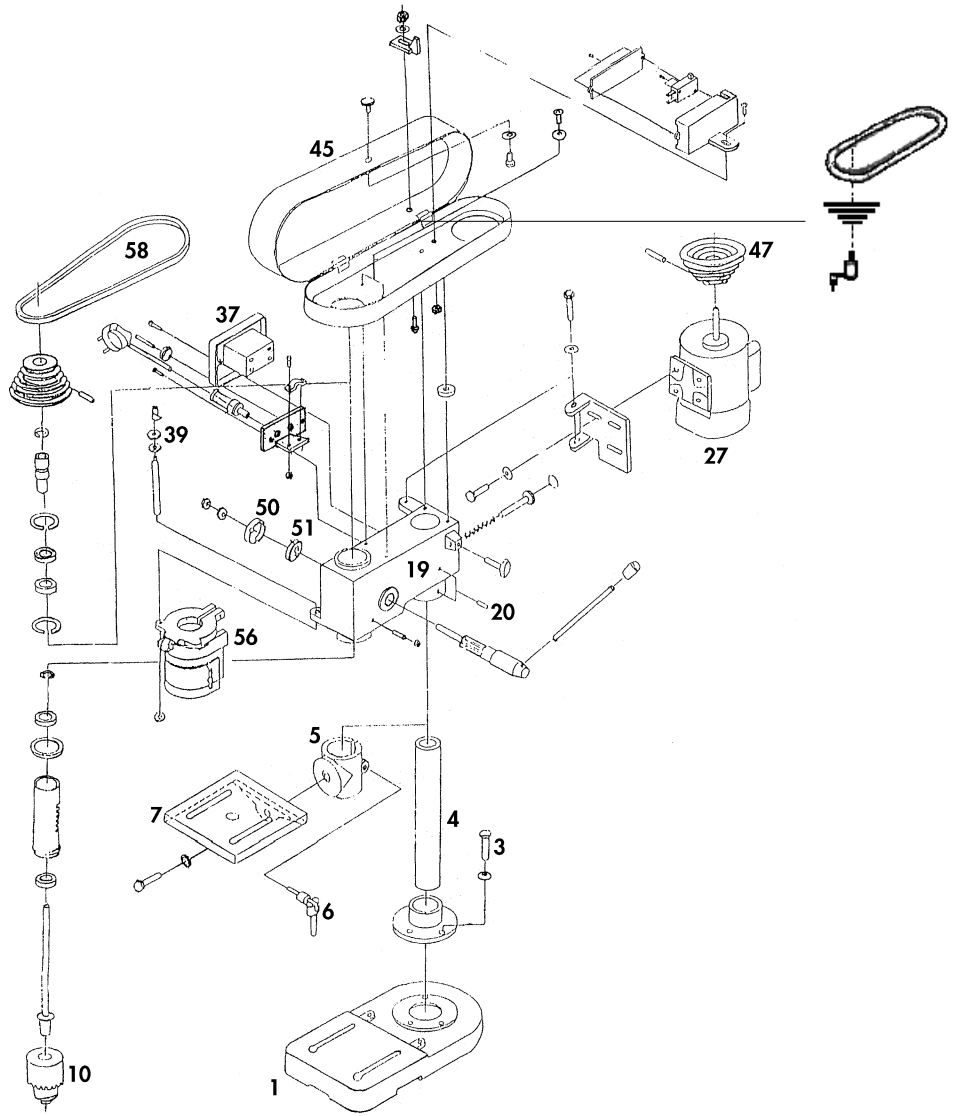
PRODUCT INFORMATION



Pillar Drill parts:
1. On/Off Switch
2. Drill
3. Chuck Guard
4. Motor
5. Depth Adjustment Levers
6. Table Locking Lever
7. Drill Head Assy
8. Set Pin, secures drill head
9. Chuck
10. Drill Table
11. Drill Column
12. Column Flange
13. Footplate

Check first whether or not the delivery has been damaged by transport and/or whether all the parts are present.

EXPLODED VIEW



SPARE PARTS LIST FTB-16/500

FERM NR	DESCRIPTION	REF NR
311111	CHUCK 16MM - B16	001
309201	V-BELT 10X478	014
309203	MICRO SWITCH	020
309202	V-BELT 10X456	022
309200	MOTOR 230V 500 WATT	025
311105	SWITCH	039
311059	SPRING HOLDER	043
311058	SPRING	044
309204	HANDLE + GLOBE	049 + 050
311055	EYESHIELD	060
309387	CHUCK KEY	_
309205	OPERATIONPIN MICRO SWITCH	_

SAFETY INSTRUCTIONS

The following pictograms are used in these instructions for use:

Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions in this manual.

Denotes risk of electric shock.

Carefully read this manual before using the machine. Make sure that you know how the machine functions and how to operate it. Maintain the machine in accordance with the instructions to make sure it functions properly. Keep this manual with the machine.

Ferm products are manufactured to high quality standards they are safe and fit for purpose at time of sale, but all tools can be dangerous if the correct precautions are not taken.
Always follow these instructions, do not carry out the operation until you are sure you can do so in safety.
Remember to consider the work environment for safe operation in addition to the safe operation of the tool.

Warning! *When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before attempting to operate this product. Save these instructions for future reference.*

PERSONAL SAFETY

Use Personal Protection Safety Equipment
Protect eyes with safety glasses or goggles note: the use of safety protective eyewear without the CE mark can lead to serious injury if the glass breaks. A suitable dust mask should be worn if cutting drilling or sanding is dusty, in particular chipboard or MDF.
Approved safety footwear and headgear should worn as appropriate, for example on building works or when heavy weights are involved.

Dress properly
Do not wear loose clothing or jewellery. It can get caught in moving parts.
Non-skid and protective footwear is recommended when working out doors.
Wear protective hair covering to contain long hair.

Stay alert
Watch what you are doing. Use common sense.
Do not operate tools when tired or after taking alcohol or prescription/ non-prescription drugs.

OPERATIONAL SAFETY

Concentrate
Do not allow routine, which occurs when using the machine frequently, to lead to mistakes. Remember that a slight lack of concentration can result in serious injuries in a split second.

Keep work area clean
Cluttered areas and benches invite injuries.

Consider the work environment
Do not expose power tools to rain or use them in damp or wet locations. Keep work area well lit.
Do not use power tools in the presence of flammable liquids, vapours or gases.

Guard against electric shock
This unit contains dangerous voltages. Use a RCD (residual current device) to provide protection against electrical shock. Prevent body contact with grounded surfaces (e.g. pipes, radiators etc.).

Keep children and pets away
Do not let children or pets come into contact with the tool, extension cable or work area.

Do not force the tool
It will work better and safer at the rate for which it was intended.

Use the right tool
Do not force small tools or attachments to do the job of a heavy-duty tool. Do not use tools for purposes for which they were not intended; for example do not use a circular saw for cutting trees or logs.

Do not abuse the cable
Never carry tool by the cable or pull it to disconnect it from the power socket.
Keep cable away from heat, oil and sharp edges. Do not touch the metal plug pins when connecting or removing the plug.

Secure Work
Use clamps or a vice to hold work. It is safer than using your hand and it frees both hands to operate the tool.

Do not over-reach
Keep a proper footing and balance at all times.

Disconnect tools from power supply
When not in use, before servicing and when changing accessories such as blades, bits and cutters,

Always switch off and unplug the appliance from the power supply when making adjustments.

Remove adjusting keys and wrenches
Ensure that they are removed from the tool before switching on.

Avoid unintentional starting
Do not carry plugged in tools with your finger on the switch. Check that the switch is off before plugging in to socket.

Extension cables
Use only three core earthed extension cables suitable for the power input of the tool (minimum cable size 1.5mm^2). Plug into an earthed socket only.
When using a cable reel unwind it fully. Do not use long extension cables.

Outdoor use extension cables
If the tool is suitable to be used outdoors, use only an extension cable intended for outdoor use and marked accordingly. Use a RCD (residual current device) to provide protection against electrical shock.
Do not use in rain or damp conditions.

Connect a dust extraction device
Whenever there are facilities for fitting a dust extraction system, make sure it is connected and used.

Use recommended accessories
The use of any other accessory or attachment other than recommended in the instructions or catalogue may present a risk of personal injury.

BEFORE USING THE PILLAR DRILL

Ensure the drill is unplugged from mains and the drill is switched off.

Refer to illustration page 2.

- The drill should be mounted on a stable surface and secured with suitable bolts/screws (not supplied) through the two holes in the centre of the footplate (13).
- Use brackets, nuts, bolts and washers as necessary to make sure the unit is securely fixed. The footplate is cast iron, do not over tighten the fixings.
- Route the mains cable well away from the chuck and front side of drill, ensure that it cannot get caught in moving parts or the work piece.

ASSEMBLY
Check package contents
Check contents against list in this manual to make sure each item is present.

Check for damage
Before using this item check each part listed is undamaged.

Save packaging
Save major packaging for return of product for service or repair.

Assemble Column, Footplate and Table
- Fasten the column (11) to footplate (13) with the three-bolts/washers/lock washers provided. Insert the bolts, with their washers, through the flange on the column and screw finger tight into threads in footplate. Tighten with a14mm spanner (not supplied).
- Slide the table assembly with the degree scale facing up over the column and lock with the lever (6)

Put the drill head assembly onto the top of the column
- Slide the head assembly (7) down until the top of the column hits the stop.
- Line up the front of the drill with front face of foot and secure the drill head with the set pin (8) using the 4mm Allen key provided,

Fitting the chuck guard (3)
- Fit the chuck guard onto the boss on the chuck spindle and secure with the bolts/washers/nuts provided.

Do not operate this drill without the guard in place and in the down position.

Fitting the drill chuck (9)
- Put the chuck guard in its upper position. Degrease the inside of the chuck and the drill spindle using a suitable biodegradable solvent, dry off and push the chuck onto the tapered spindle.
- Tap the chuck ***gently*** onto the spindle with a soft face hammer.

Fit the depth adjustment levers

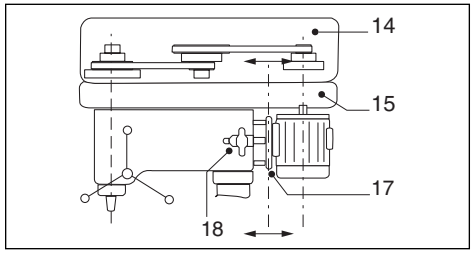
- Screw the three levers (5) into the boss on the left hand side of the drill head hand tight.
- Run idle for 15 minutes. Check the V-belt tension (see section below) - start the drill and run idle for 15 minutes to distribute the factory-applied grease throughout the bearings. This is done only when using the drill for the first time.

ADJUSTING THE DRILL SPINDLE SPEED

Ensure the drill is unplugged from mains and the drill is switched off.

Refer to illustration below.

- Open the pulley cover (14)
- Loosen the thumbscrews (18) and push the motor towards front of drill.
- Move the V-belts to set the desired speed; the speed chart is on the inside of the pulley cover and at the end of this manual.
- Make sure the V-belts run parallel as illustrated on the chart, if the belt is installed diagonally it will slip and wear out quickly.
- Tighten the thumbscrews.
- Close cover securely.
- When you have changed speeds the V-belt tension must be checked. See section below.

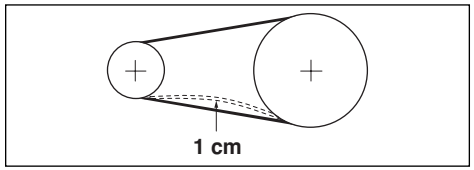


CHECKING THE V-BELT TENSION

Ensure the drill is unplugged from mains and the drill is switched off.

Refer to illustration below

- Open the pulley cover and loosen the thumbscrews (18).
- Move the motor plate (17) backwards /forwards to adjust the V-belts tension. The correct tension is +/- 1 cm in middle of belt as illustrated below, do not over tighten the belt.
- After adjustment close the pulley cover securely.



USING THE PILLAR DRILL

Ensure the drill is unplugged from mains and the drill is switched off.

INSERT A DRILL INTO THE CHUCK

- Make sure the drill is suitable for the material you are using, that it is sharp and the shank is in good condition.
- Tighten using the chuck key provided. Remove the chuck key.
- Make sure the drill is secure in the chuck, if it slips during drilling the shank will be damaged and you will not be able to centre it in the chuck next time its used.

SECURING THE WORKPIECE

- Always use clamps or a drill vice to secure the workpiece.
- The slots in the drill table are for attaching the clamps or a drill vice.

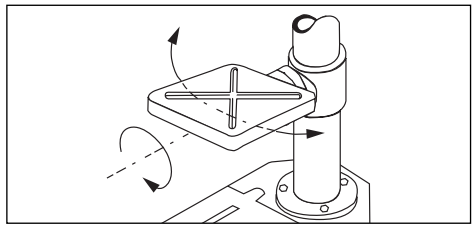
Never hold the workpiece with your hand.

ADJUSTING THE DRILL TABLE

The drill table can be adjusted for height and angle.
Refer to illustrations below.

To adjust height

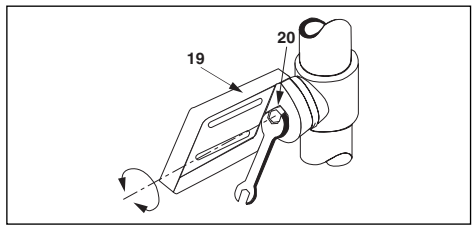
- Loosen clamp lever and move table to desired height, tighten clamp lever to secure.



To adjust table angle

- Loosen the hexagon headed nut (20) on the underside of table (19) with a suitable spanner (not supplied).
- Rotate the table to the desired angle and tighten nut to secure.
- The angle is indicated on the scale on clamp collar.

Note: The scale is for indication only, for very accurate angles. Measure with a protractor or similar and adjust as necessary.



OPERATING THE PILLAR DRILL

- Plug into a suitable mains supply and switch on.
- Check that the chuck guard is in the down position

To switch the drill ON
Push the green button on the left hand side of the drill head in.

To switch the drill OFF
Push the red button on the left hand side of drill head in.

Note: This is a no volt release switch and will not operate without the power connected.

DURING USE
- Let the bit come to full speed before drilling the work piece.
- There is a depth limiting device on the inside of the drill adjustment levers (5)- this is for indication only, for accurate depth, use a ruler to set the drill depth
- Use appropriate speed and feed rate for the drill bit/material being used.
- Do not force the drill.
- Press the drill head downwards with gentle pressure. Let the drill do the work.
- Clamp material properly. Do not use hand or foot to support the work piece. Use a suitable clamp or drill vice to secure the workpiece against the table
- Be aware that this is a powerful drill. Unclamped or unsupported workpieces can kick causing injury. Do not hold workpieces with your hands while drilling them. Do not wear gloves while drilling; they can get caught in the bit resulting in injury.
- Never drill several workpieces at the same time
- Use constant gentle pressure. If the bit seizes, switch off, unplug and rotate the bit anticlockwise to release. Never switch the drill on with the bit jammed.
- Do not use the drill without the guards in position. Always wear suitable safety glasses in addition to the chuck guard when using this machine.
- Remove swarf and chips. Keep the table and clamps etc clear of debris with a suitable brush (switch the drill off first). Do not use your hands
- Regularly inspect the bit (switch the drill off first) during use for signs of damage or wear and sharpen/replace when required. Only use recommended drill bits suitable for the material and speed you are using.
- Use the right speed and feed rate. Follow the bit manufacturers recommendations, as a general rule use a slower speed and feed rate for larger diameter drills and higher speed and faster feed rate for smaller drills.
- Cutting Oils. Use the drill bit manufacturers recommended cutting oil/lubricant when required. Do not use water.
- Ensure you remove the chuck key. After tightening the drill bit make it a habit to remove the key straight away.
- Switch the machine off before removing the plug from the mains socket.
- Be careful. Keep your hands away from the bit.
- Do not use the drill as a press.

MAINTENCE, CARE AND REPAIR

CLEANING
Clean the drill with a soft brush or a wiper moistened with a suitable biodegradable solvent.
Do not use inflammable liquids like petrol or alcohol, they are a fire risk and will damage the plastic parts.

FAULTS
Switch OFF immediately at the mains plug and remove the plug when:
- The plug or cable is damaged.
- The switch on the machine is defective.
- You smell or see smoke caused by scorched insulation in the machine.

The saw does not work when switched on
- Damaged plug/fuse.
  Replace as required.
- Defective switch.
  Take to local dealer for repair.

Excessive Sparking
- Indicates dirt in the motor or worn bushes.
  Take the drill to your Ferm dealer.

Overheating
- Clean the motor ventilation with brush or dry cloth.
- The drill is overloaded.
  Apply less load. Use sharp drills.
- The motor is defective.
  Take to your Ferm Dealer.

MAINTAIN TOOLS WITH CARE
Keep tools sharp and clean for better and safer performance.
Follow instructions for changing accessories. Inspect tool and extension cables periodically and if damaged, have them repaired by a qualified person or authorised service body. Keep handles free from oil or grease. Keep the ventilation slots clean to prevent motor overheating.

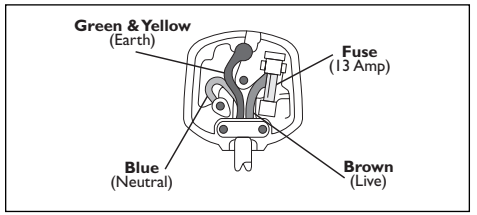
Check for damaged parts
Do not use a tool with damaged parts, before further use a damaged tool must be carefully checked by a qualified person to determine that it will operate properly. Check for alignment of moving parts, binding or breakage of parts, mounting and other conditions that may affect its operation.
A damaged part or guard should be properly repaired by an authorised service centre, unless indicated otherwise in the instruction manual. Have defective switches replaced by an authorised service centre. Do not use a tool if the switch does not turn on and off.

Have your tool repaired by an expert
This appliance is manufactured in accordance with relevant safety standards. Only experts must carry out repairing of electrical appliances, otherwise considerable danger for the user may result.

Storing tools
When not in use tools should be stored in the dry, out of reach of children.

ELECTRICAL INFORMATION
This product is complete with a pre-wired mains plug. If the plug needs replacing follow these instructions.

Wire correctly
The mains wires in this machine are coloured in the following way:



BLUE	• Neutral (N)
BROWN	• Live (L)
EARTH	• Green/Yellow (E)

Secure wires carefully
Fix firmly to the correct terminals. Secure the mains cable in the plug cord grip firmly
Fit a 13-amp fuse. If a 13 amp (BS1363) plug is used a 13 amp fuse (BS 1362) must be fitted.

Recycle/Dispose of old plug and cable
Prevent inadvertent connection to socket and risk of electric shock. ***If in doubt always consult a Qualified Electrician.***

ENVIROMENT
At the end of this products or its accessories life please recycle where facilities exist. Phone the Helpline for current advice on recycling.

Helpline
For any questions relating to operational or safety matters contact:
Ferm Customer Helpline on: **0115 966 1199**
Monday-Friday **8am – 6pm**
Saturday **9am – 1 pm**

GUARANTEE
The guarantee conditions can be found on the separately enclosed guarantee card.

CE DECLARATION OF CONFORMITY (UK)

We declare under our sole responsibility that this product is in conformity with the following standards or standardized documents

EN61029-1, EN55014-1, EN55014-2
EN61000-3-2, EN61000-3-3
in accordance with the regulations.

98/37/EEC
73/23/EEC
89/336/EEC

from 03-02-2000
GENEMUIDEN NL
W. Kamphof
Quality department